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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,988	12/21/2000	Hiroshi Arita		5452

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EXAMINER	
BROOKS, MATTHEW L	
ART UNIT	**PAPER NUMBER**
3629	

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/740,988	ARITA ET AL.	
	Examiner	Art Unit	
	Matthew L. Brooks	3629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19-21,23-28,31 and 32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19-21,23-28,31 and 32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims **19-21,23-28, 31 and 32** are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: between steps (**a**) and (**b**), no power is yet transferred.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. NOTE: For purposes of this Examination and to facilitate ease the References "Miesen" will be referred to as "Worldwide Connections" and the reference "Kyoto" is

referred to as "Kyoto". Otherwise the rejection below is the exact same, minus typos, as found in the last Non-Final Office Action sent on 12/01/2004.

6. Claims **19-21, 23-28, 30 & 31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Worldwide Interconnections: "Worldwide Interconnections May Be An Idea Whose Time Has Come" Global Energy Network in view of Kyoto ("The Kyoto Protocol", The Emissions Trader, January 1998, vol. 2 issue 1).

7. In regard to claims 19-21, 23-25, 28, 30 & 31, the article by Worldwide Interconnections ("Worldwide Interconnections May Be An Idea Whose Time Has Come", Global Energy Network: here in after Worldwide Interconnections) discloses that it is economically and environmentally desirable to use an electrical power distribution grid that includes the ability for the excess power generation/production capacities in a first country to be interchanged/transmitted/ exchanged across international borders so as to be used to supplement the supply of power generated/produced in a second different country that is connected to the international distribution grid. In this manner the demands for power for any of the countries connected to the international distribution grid may be met regardless of any time and/or seasonal differences between the countries connected to the international distribution grid. Further, as is common, producers of power to regularly interchange/ transmit/exchange power between various countries by selling/trading the power that has been generated/produced in excess of the current local demand for power to another country. Where during these interchanges/transmissions/exchanges of the generated/produced power that is interchanged/transmitted/exchanged are settled in

view of some mutually agreeable consideration between the receiving country to the transmitting country, for example a common currency. In regard to claim 23, it is noted that the above process would apply to a nation power distribution grid.

In regard to the use of environmental values/loads as recited in claims 19-21, 23-25, 28, 30 & 31, although the article by Worldwide Interconnections mentions that it is environmentally desirable to trade power by interchanging/transmitting/exchanging power between countries, Worldwide Interconnections does not use environmental values/loads as the consideration during the settlement process for the interchange/exchange/transmission of power. However, such a concept of using environmental values/loads as the consideration during the settlement process for the interchange/exchange/transmission of power has been set forth by the article by Kyoto ("The Kyoto Protocol" The Emissions Trader, January 1998, vol. 2 issue 1: here in after Kyoto).

Since, Kyoto discloses that it is known to trade emissions for power, it would have been obvious to one of ordinary skill at the time of the invention that environmental values/loads/CO_2 Emissions rights" may used as the consideration in the settlement process for the interchange/exchange/transmission of power from a first country to a second country.

Further in regard to the proper control of the interchange/exchange/transmission of power over the distribution grid as well as the use of alternating current to direct current converters in the interchange/transmission/exchanging of power over a distribution grid as recited in the claims, since any type of the improper

interchanging/transmitting/exchanging of power over any distribution grid would be economically unfeasible for either the transmitting or receiving parties as well as dangerous to the distribution grid as a whole, it would have been obvious to one of ordinary skill at the time of the invention that power interchanging/transmitting/ exchanging of system/method of Worldwide Interconnections in view of Kyoto would implement suitable control measures and protocols so as to prevent the improper interchanging/ transmitting/exchanging of power over the international power distribution grid.

In regard to claims 26-27, it is noted that since power distribution system/method of Worldwide Interconnections in view of Kyoto requires the economical generation/production of power, it would have been obvious to one of ordinary skill at the time of the invention that power interchanging/transmitting/exchanging of system/method of Worldwide Interconnections in view of Kyoto could use any suitable method of producing a quality of power by any economically feasible method, absent applicant's showing of new and unexpected results from using a particular methods to produce/generate power.

Response to Arguments

8. Applicant's arguments filed 4/29/2005 have been fully considered but they are not persuasive.

9. In response to Applicant Remarks on pg 11, last paragraph; First, that under the current invention there is a first "transaction involving a transmission of e-power across a border between two countries". This is clearly taught by Worldwide Interconnections.

Worldwide Interconnections teaches power is purchased and sold every day. In order for this to occur there must be a measuring an amount of power transmitted from the first country to the second country. "Power is purchased and sold everyday to neighboring systems. Thus part of the currency used to purchase the power, if "emissions trading" was known, could obviously and most certainly be a CO2 emissions right.

Kyoto shows CO2 emissions trading is known (see Kyoto pg A and C (ii)). Furthermore Kyoto teaches of The Kyoto Protocol. Kyoto Protocol administers emissions rights to a first and second and third and fourth country etc. Merely picking any two countries gives one an integrated CO2 emissions right amount. Simply by the fact that emissions trading was known shows that it is a commodity thus a limited resource, and of course power generated is equivalent to CO2 generated/or/CO2 emission right value.

At this point in a free market; if one country has the capability to produce power and another second country needs power, the first country/providing country would be free to accept any type of payment, for power provided that it chooses such as money, a CO2 emission right, wheat, corn, etc.; all depending upon what the country needed. IF the first country chose the emissions rights commodity as a choice of/part of payment responsibility for generation of CO2 would then be attributed to the second country. Ironically Applicant's own submitted FIG 5 shows that nearly identical process as an embodiment of the invention; where one can pay for power provided by a CO2 right, fuel, electric energy or/and of course money.

10. As to page 12, first full paragraph of Remarks.

True the Worldwide Interconnections reference says long distance "can be made reliable". But also states power currently **is purchased and sold everyday to neighboring systems** (See A and B, fig 1 which even shows line routes from country to country). The confusion lies in the fact that Worldwide Interconnections does **not** say the ability to provide country to country may be reliable, that was already reliable and known. But rather states that the ability to have a world wide power grid, something superior to country to country, may soon be reliable.

As far as Meisen/ Worldwide Interconnections not teaching how e-power Between two countries 1. might take place, 2. be accounted for and/or 3. is measured is not true. Because again Worldwide Interconnections teaches "power purchased and sold everyday", of course the first providing country must account for and measure power in order to sell. As far as how take place see pg B, fig 1 "lines to Europe to Grand Inga and page A "...up to about 6500 km with HVDC and 4800 km with HVAC..." If Applicant wants more evidence that providing power from one country to another was known in the art and was carried out in many ways, Examiner directs the Applicant to the attached evidence NEW SCIENTIST, "Global Power the electric hypergrid" attached herein.

NOTE: Also here Applicant has not claimed any specific or special new way of measuring, accounting for or transferring power. Only that it is done. Either way for purposes of the novelty of the method any way of performing the above three tasks would be obvious arbitrary ways of accomplishing said tasks.

As to Worldwide Interconnections not teaching converted CO2 emissions right, Examiner does not rely on Worldwide Interconnections to teach this, rather Examiner turns to Kyoto. HOWEVER, Applicant should note that Worldwide Interconnections does make mention of "polluting power sold brings economic benefits" (see Page C (i)).

11. As to page 12, second full paragraph:

Examiner somewhat agrees with the first sentence, but there is a definite problem with the second sentence. Applicant interprets the reference, Kyoto, wrong by combining the terms "trading" and "banking".

Kyoto teaches two distinct terms trading AND banking (see page C (ii)-(iii) and D (i)-(ii)), wherein emissions rights may be traded and/or banked/allotted/borrowed.

As to the trading (see above #9), how else could one trade other than to measure amount generated and converting to some common currency/or/CO2 emissions right value.

12. As to the first full paragraph in the middle of page 13 of Remarks.

Applicant view that there is no teaching in the references of administering an integrated CO2 emissions rights amount to/of a country, Examiner strongly disagrees. Kyoto does teach administer, which in fact is what The Kyoto Protocol is all about. (See Kyoto Pg A and C (v) and C (iv) and D (i)-(ii) labeled for ease of Applicant on the reference). For instance a 5 year emission account is how much CO2 emission allowed administered.

13. As to the second paragraph on page 13 the administration equipment being provided is inherent with in the references.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew L. Brooks whose telephone number is (571) 272-8112. The examiner can normally be reached on Monday - Friday; 8 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on (571) 272-8112. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLB
12/9/05

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